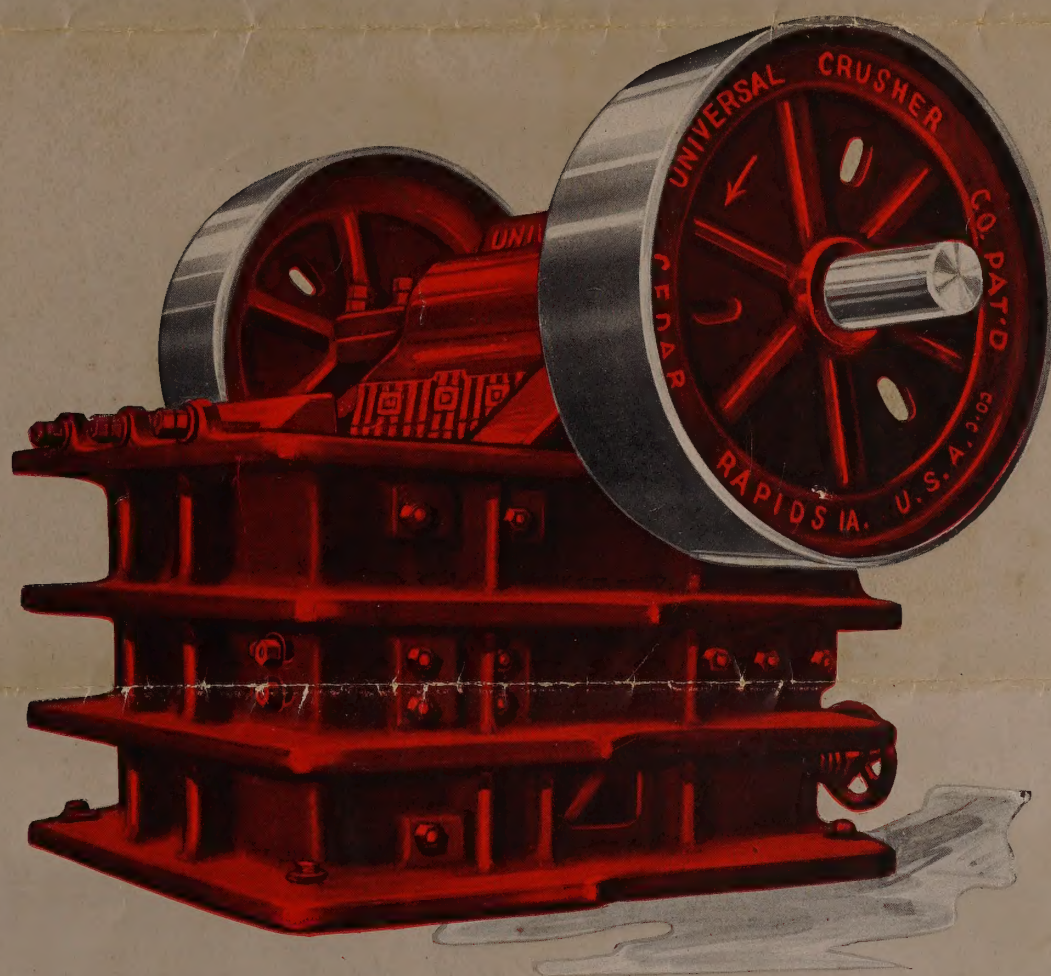


UNIVERSAL CRUSHERS



Manufactured by
Universal Crusher Company
Cedar Rapids, Iowa, U. S. A.

Universal Crusher Company

Manufacturers of Universal Jaw Crushers, Universal Hammer Pulverizers,
Elevators, Screens and Auxiliary Equipment

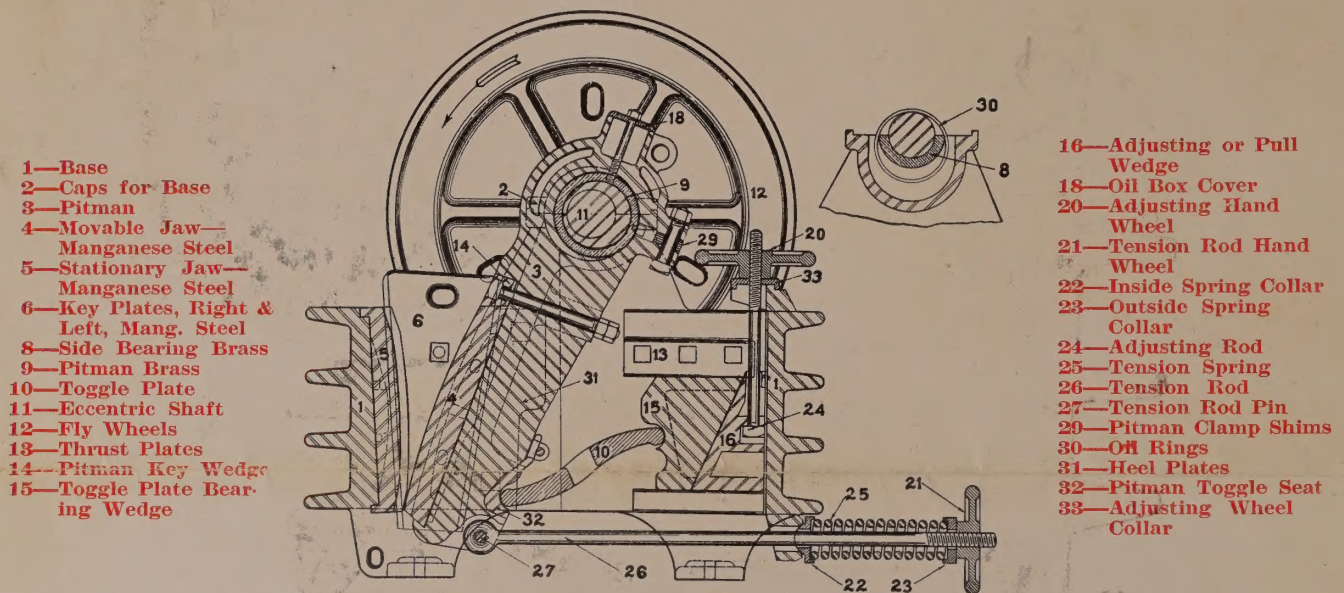
625 C AVENUE WEST, CEDAR RAPIDS, IOWA.

UNIVERSAL CRUSHERS are equipped with the latest improvements, behind them being more than twenty years of specialization in the manufacture of a machine capable of producing a uniform product of either fine or coarse material in commercial quantities at a low cost. We offer the most complete line of crushers in the United States today and have spared neither time nor expense in building them up to the highest standard of efficiency. This folder will give you but a general idea of our extensive line and illustrates but a few of the 22 sizes which we build.

If you are using or intending to use crushers for reducing

any kind of stone or ore you should not fail to investigate the superior points embodied in the Universal machine. The addition of a line of large capacity crushers of all steel construction places us in a position to give satisfaction in every field of crushing operation. Due to their superiority in turning out fine, uniformly crushed materials at a low cost for repairs and power consumption our machines are making money for hundreds where others have failed. Their use has eliminated the necessity of returning materials again and again for recrushing as well as providing a satisfactory substitute for expensive and complicated equipment.

TYPICAL SECTIONAL VIEW



The cross section shows the general construction and basic working principles of all Universal Crushers. Note their unusual simplicity throughout, the absence of a complicated system of bearings, reducing friction and the consequent power required, the oiling system, the safety toggle and the instant adjustment for any size material without stopping the machine or even checking the feed. All parts are readily accessible and can be easily removed or installed by ordinary

help employed about the plant. High eccentric and radial toggle action combine the crushing and grinding movements, force the feed and produce a remarkably uniform product. There is never an excess of fines or oversize. Simple and dependable construction, easy operation, long life, low power consumption and uniformity of product make this type of crusher superior to any other in its field.

MORE THAN 20 YEARS OF MANUFACTURING AND DESIGNING EXPERIENCE AT YOUR SERVICE.
PUT YOUR CRUSHING PROBLEMS UP TO US.

SOME UNIVERSAL STANDARDS

QUALITY

QUICK SHIPMENT

SERVICE

CUSTOMER SATISFACTION

Universal Steel Crushers

Fig. AX

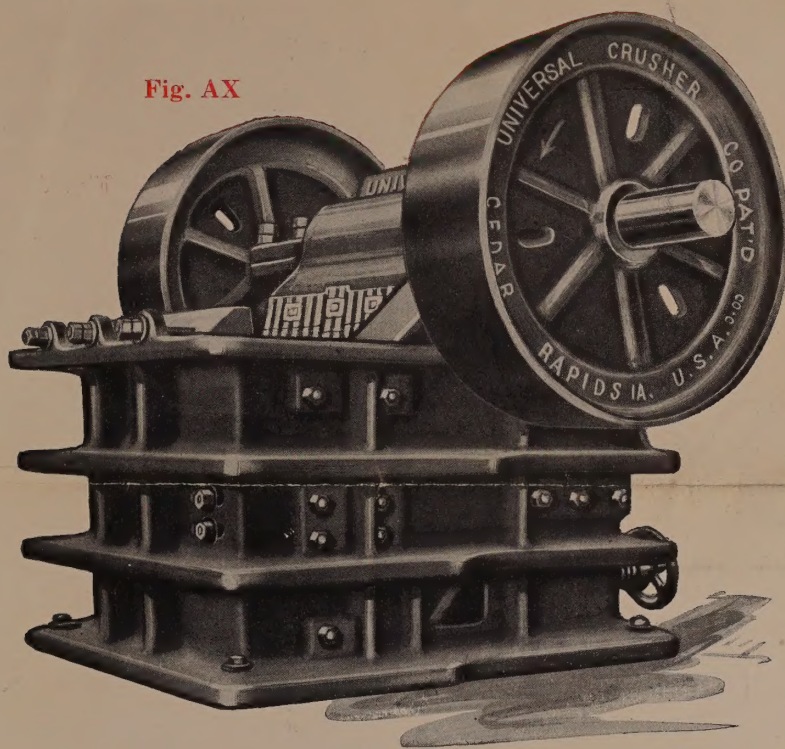


Figure AX illustrates our large opening STEEL crushers for heavy duty general crushing. The 1500 and 1200 lines are the same except that the 1200 line is equipped with special heavy two piece tapered stationary jaw changing the angle of grip so that they are particularly well suited for handling roundheads and all stone of the trap rock variety. These lines meet every demand for a large capacity machine that will stand the severest strains of the crushing operation and still be light enough for use in portable outfits. Behind them are many years of manufacturing and desiging skill representing the very best in jaw crusher manufacture. The frames are of steel, strong and rigid. The heart of the crusher—the bearings—are extra large and of bronze. These with a positive system of lubrication reduce bearing trouble to a minimum. The larger sizes in these lines are equipped with water jacketed pitmans. Notice the massive well reinforced frames, heavy pitman, corrugated jaws, large shaft and rigid appearance of the machine throughout.

Contractors, Road Builders, Sand and Gravel Pit operators, Quarry men, Mine Operators and all interested in crushed stone production, whatever may be your requirements, large or small, for hard or soft stone, there is a Universal that is fitted to your job.

STRONG, LIGHT, DURABLE and DEPENDABLE, UNIVERSAL CRUSHERS represent the biggest crusher value on the market today. We welcome any opportunity to establish this claim.

Owing to the wide variation in the friability of materials the capacities given in the tables are approximate and based on ordinary stone.

ALL CRUSHERS MANGANESE EQUIPPED.

Large Opening Steel Crushers for Granite, Limestone, Boulders, Gravel, Ore, Etc.

No.	Jaw Opening	Speed R.P.M.	Wt. on Skids	H. P.	Capacities in tons per 10 hrs.
					2½ in. 1½ in. ¾ to 1 in.
1536	15x36	175-200	15850	40-50	300-450 200-275 150-200
1524	15x24	175-200	12960	30-35	225-300 175-200 125-150
1520	15x20	175-225	11900	25-35	150-200 100-150 75-100
1236	12x36	175-200	15875	40-50	250-350 175-225 125-175
1224	12x24	175-200	13000	30-35	175-225 150-175 80-120
1220	12x20	175-225	11950	25-35	150-200 100-150 75-100

Weights include extra toggle plate.

Specifications for modern concrete construction call for large quantities of fine crushed stone and gravel. It is here that Universal Crushers have always led the field. Our latest model Gravel and Rejection Crusher illustrated by Fig. GR is a perfect machine for this class of work.

The 810 machine is sectionalized for mule-back transportation.

What Our Gravel and Rejection Crushers Will Do.

Crush your oversize gravel, rejections and all other refractory materials to ¾ in. and finer, if desired, in one operation.

Eliminate elaborate and costly installations for the production of large quantities of fine materials.

Enable crushed stone producers to meet highway specifications in any state in the Union.

Produce a finer and more uniform product than any other type of Crusher.

Give a wider range in the relation of the feed to the size of the finished product than any other crusher manufactured.

Produce any size material down to ½ in., adjustment being made in a few minutes while the machine is in operation.

Eliminate heavy costly machinery in the mining field.

Meet every demand for a light unit for use in portable outfits.

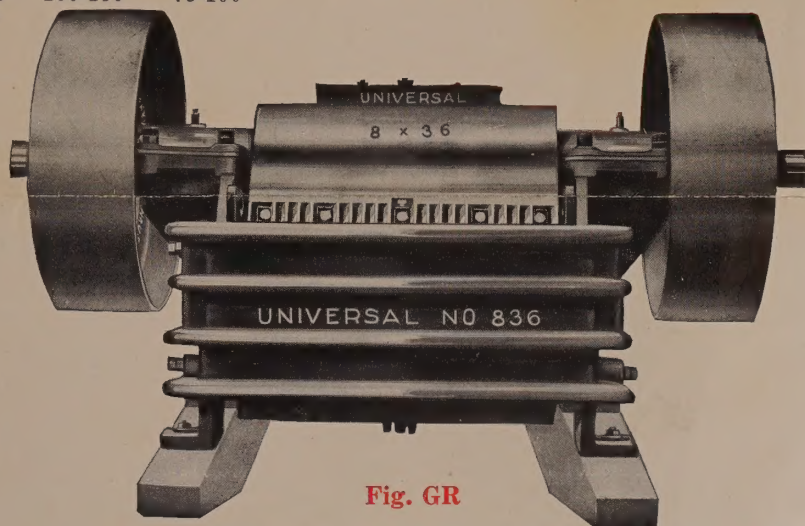


Fig. GR

No.	Jaw Opening	Speed R.P.M.	Wt. on Skids	H. P.	Capacities in tons per 10 hrs.
					2½ in. 1½ in. ¾ to 1 in.
836	8x36	175-225	10700	25-35	200-300 120-175 95-150
824	8x24	175-225	8290	20-25	150-225 80-120 65-100
818	8x18	225-275	6150	15-20	125-175 60-90 50-75
816	8x16	250-300	4175	12-15	80-100 50-60 40-50
812	8x12	275-325	2500	10-12	35-50 25-35 20-30
810	8x10	275-325	2360	6-10	25-40 20-30 15-20

Weights include extra toggle plate.

THOUSANDS OF SATISFIED USERS, THE NAME AND ADDRESS OF ONE NEAR YOU ON REQUEST.
UNIVERSAL CRUSHER COMPANY, 625 C AVE. WEST, CEDAR RAPIDS, IOWA.

Universal and Eureka Crushers

Fig. AA shows our No. 4M Universal Crusher, the design being the same on all Universal machines listed on this page. These crushers are very rugged in their construction and all wearing parts are of special metals selected because of their great wear-resisting qualities. They are recommended for all kinds of stone, gravel, ore and general refractory work. Widely used in both stationary and portable styles by Contractors, Road Builders, Cement Mills, Pit and Quarry Operators, Concrete Products Plants, Mine Operators, and all others who are interested in the production of large or small quantities of either fine or coarse materials at a low cost per ton of output. Every machine is fully guaranteed against all defects of material and workmanship and we take pleasure in seeing to it that each purchaser gets the satisfaction that he has a right to expect.

These machines together with those listed elsewhere in this circular constitute the most complete line of high grade crushers offered by any manufacturer.

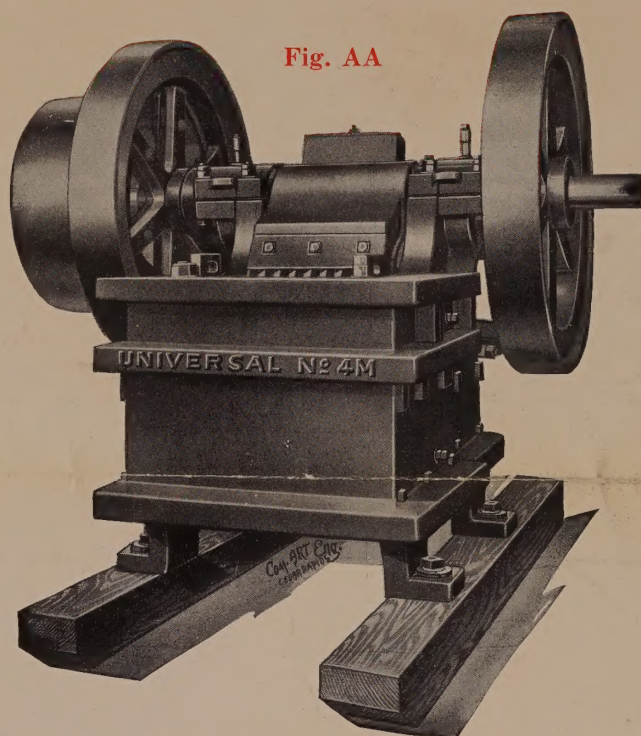


Fig. AA

SPECIAL FEATURES of all UNIVERSAL CRUSHERS

Very simple in design, easy to install and can be operated without the aid of expert workmen.

Two positive crushing blows to each revolution of the shaft.

Regularly equipped with reversible corrugated jaws of the best manganese steel, very durable and unbreakable.

Steel Split Pitman with removable bearing.

Heavy high carbon and alloy steel eccentric shafts.

Only three bearings, these of phosphor bronze and dust proof.

Less bearing—less friction—lower power consumption.

Reliable and effective lubricating system which eliminates all heating troubles.

A toggle system which protects the vital and expensive parts of the crusher.

Instant adjustment to crush to any desired size without stopping the machine or using tools.

Approximate Capacity in Tons Per Day of 10 Hours, Crushed to the Following Sizes.

UNIVERSAL No.	Jaw Opening	Speed R. P. M.	Wt. on Skids	H. P.	2½ in.	1½ in.	1 in.	¾ in.	¼ in. and finer
No. 4M	11x18	250-300	12500	20-25	125-175	80-100	60-75	50-60	
No. 4	10x16	250-300	7800	15-20	100-125	60-70	50-60	40-50	
No. 3M	9x16	275-350	5300	12-15	80-100	50-60	40-50	30-40	12-16
No. 3	9x14	275-350	4800	10-12	50-70	40-50	25-35	20-30	10-14
No. 2M	8x12	300-375	3250	8-10	35-50	25-35	20-25	15-20	8-12
No. 2	8x8	300-375	2850	6-8	20-30	16-20	12-15	10-12	5-8
No. 1M	5x6	350-400	1100	3-4		8-10	5-7	4-6	3-4
No. 1	4x6	350-450	550	2-3		5-7	4-5	3-4	2-3
EUREKA									
No. 1B	7x12	325-400	2300	6-10	30-40	20-30	15-25	12-20	8-10
No. 1	7x8	325-400	1700	5-8	20-30	16-20	10-15	8-10	5-7

Horsepower and Rated Capacity Based on Ordinary Stone

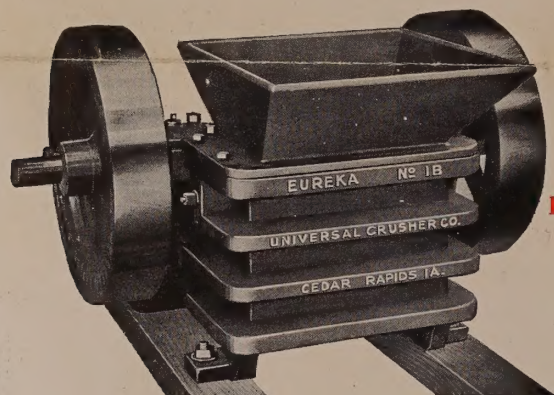


Fig. E

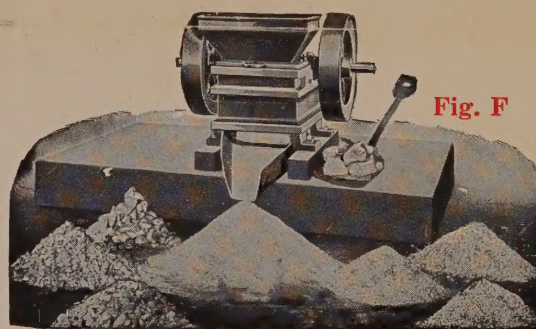
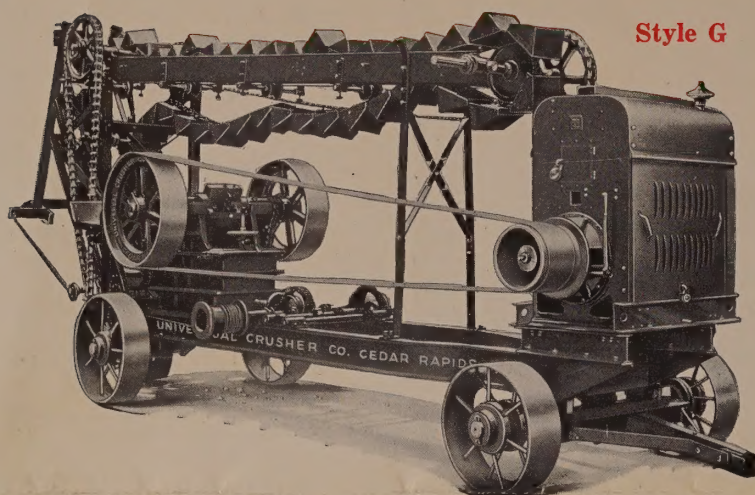


Fig. F

Our Nos. 1 and 1B Eureka crushers as illustrated by Figure E are excellent machines where light refractory work is to be done. They are the same as the Universal crushers except that they are slightly lighter in construction and the bearings are of babbitt instead of bronze. Figure F illustrates the various materials that can be produced with our Nos. 1, 1M and 2 Universal also our Nos. 1 and 1B Eureka. These machines are ideal for use in Concrete Products Plants, Brick and Tile Plants, etc. They are money makers for those who have oversize gravel, rejections, granite and marble spalls, culls and other materials which can be crushed to a fineness suitable for blocks, brick moulds, pebble dash, etc. Keep in mind the instant adjustment for any size material and the ease with which it can be made.

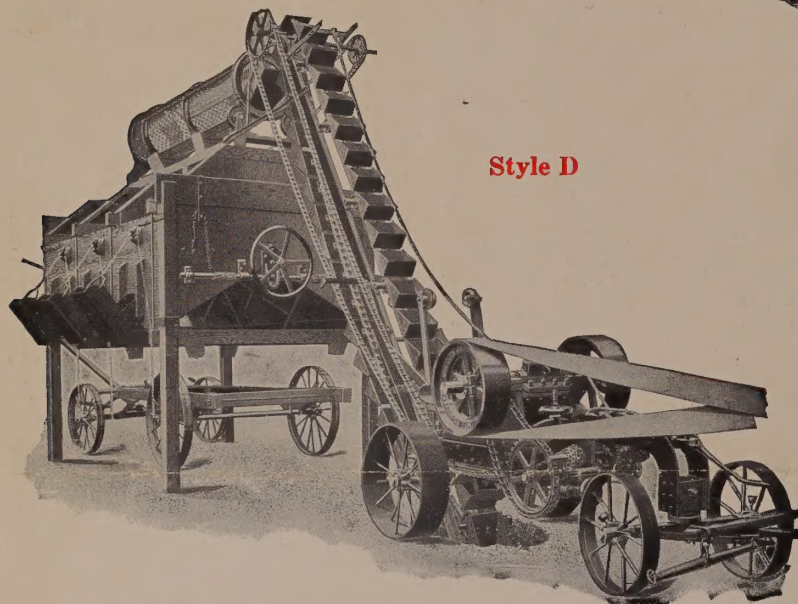
**WE CARRY IN STOCK A FULL LINE OF REPAIRS FOR UNIVERSAL AND EUREKA CRUSHERS.
WRITE FOR INFORMATION AND PRICES.**

Universal Portable Crushers



Style G

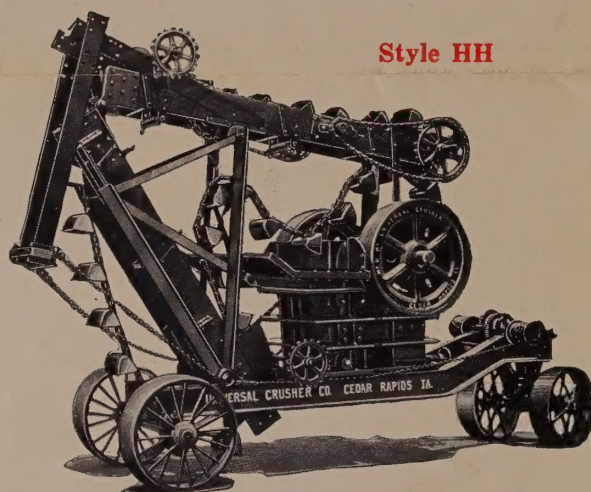
Style G shows method of mounting Crusher on Steel Truck with folding elevator and four cylinder gasoline engine. It is especially suitable for use with Crushers of 30, 50, 60 and 100 ton capacity, and is the favorite style of mounting for Contractors, Good Roads work and general construction work where a self contained rig is wanted. It is very easily moved from place to place and is always ready for work without any extra labor or expense to set up.



Style D

Style HH shows crusher mounted on steel truck with folding elevator without power. This is our standard mounting for all our medium and heavy weight crushers ranging in capacity from 50 to 450 tons per 10 hour day. Our cut-under truck frame is built with one piece I Beams insuring maximum strength and rigidity. Elevators furnished with steel or wood frames with either continuous or salem type buckets on heavy combination chain or belt carrier.

ALL HEAVY DUTY TRUCKS ARE EQUIPPED WITH ROLLER BEARINGS.



Style HH

Style D shows our Contractor's Outfit complete with portable bin, screen, folding elevator and Crusher. This outfit is equipped especially for road and other contract work where a quantity of different sizes of rock are required. Any of the crushers listed in this circular can be built in this style with elevator and loading bin to suit individual needs. This is a compact and convenient combination for those who wish to crush and screen rock and gravel near their work.

The bin can be lowered on its trucks and moved separately or attached to the crusher outfit.

SPECIFICATIONS OF UNIVERSAL PORTABLE OUTFITS

Number	Jaw Opening	Engine 4 Cyl.	Length Truck	App'x. Wgt.	Number	Jaw Opening	Engine 4 Cyl.	Length Truck	App'x. Wgt.
No. 2M	8x12	No Power	8 Ft.	5700	No. 812	8x12	No Power	8 Ft.	5000
No. 2M	8x12	20 H. P.	14 Ft.	7900	No. 812	8x12	20 H. P.	14 Ft.	7100
No. 3	9x14	No Power	12 Ft.	7600	No. 816	8x16	No Power	8 Ft.	7100
No. 3	9x14	20 H. P.	16 Ft.	10300	No. 816	8x16	35 H. P.	16 Ft.	10400
No. 3M	9x16	No Power	12 Ft.	10200	No. 818	8x18	No Power	12 Ft.	9550
No. 3M	9x16	35 H. P.	16 Ft.	11500	No. 818	8x18	35 H. P.	16 Ft.	12400
No. 4	10x16	No Power	12 Ft.	11200	No. 824	8x24	No Power	12 Ft.	11680
No. 4	10x16	35 H. P.	16 Ft.	13000	No. 836	8x36	No Power	12 Ft.	14270
No. 4M	11x18	No Power	15 Ft.	16500	No. 1220 or 1520	No Power	No Power	15 Ft.	13250
					No. 1224 or 1524	No Power	No Power	15 Ft.	19740
					No. 1236 or 1536	No Power	No Power	15 Ft.	22320

The above specifications include 14 ft. folding elevator as shown in Styles HH and G
Elevator for use with bin and screen can be furnished any length desired.

WRITE FOR INFORMATION AND PRICES ON OTHER COMBINATIONS AND UNITS USED IN STONE AND GRAVEL CRUSHING OUTFITS.

Universal Screens and Elevators

Figure T shows our Shaft and Spider Construction Revolving Screen which we equip with any size mesh, wire or perforated steel screen. This screen is suitable for light or medium service, but for heavy service we recommend our Roller Type Screen.

Figure U shows a small Heavy Service Roller Supported Screen, which we furnish regular with our Portable Bins and other work, unless the Shaft Screen is especially ordered.

Figure V shows a heavy perforated sheet steel screen 36 inches in diameter by 16 feet long, especially suitable for screening crushed rock, while Figure W shows a screen 48 inches in diameter by 22 feet long fitted with extra heavy wire mesh screen; this type of mesh is very efficient in handling coal, coke or other like materials. On account of its length, this screen is supported with center ring roller bearings, making it exceptionally rigid and adaptable to heavy service.

We manufacture all these styles of screens in 24, 30, 36 and 48 inch diameters and any length that may be required to properly separate the crushed material into different sizes.

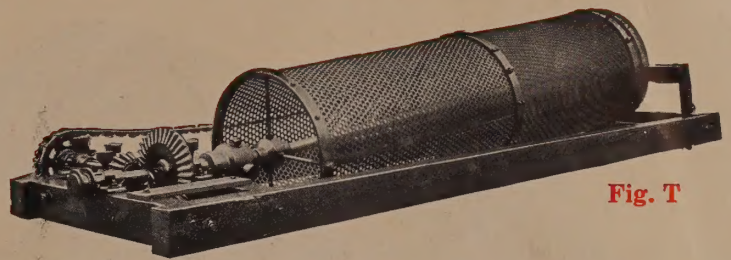


Fig. T

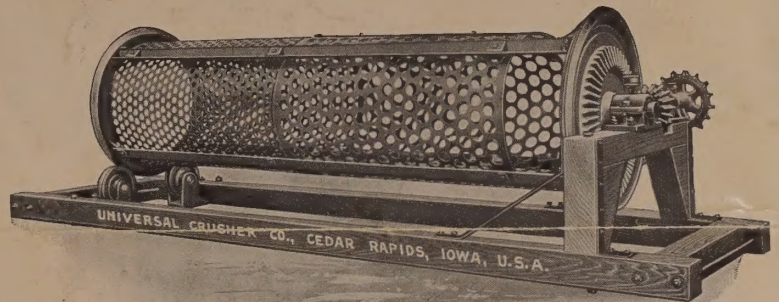


Fig. U

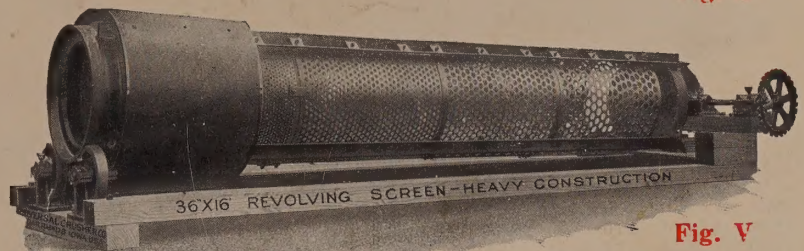


Fig. V

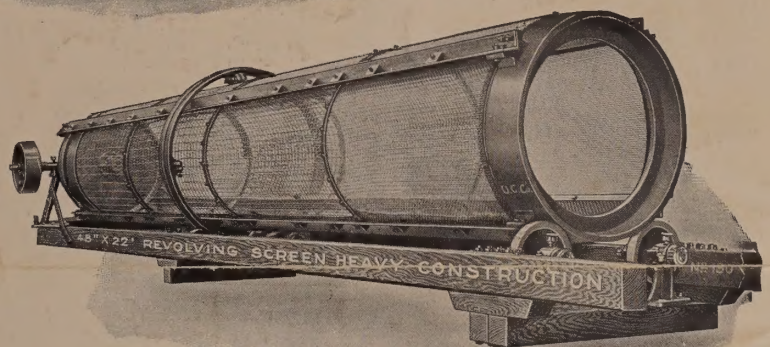
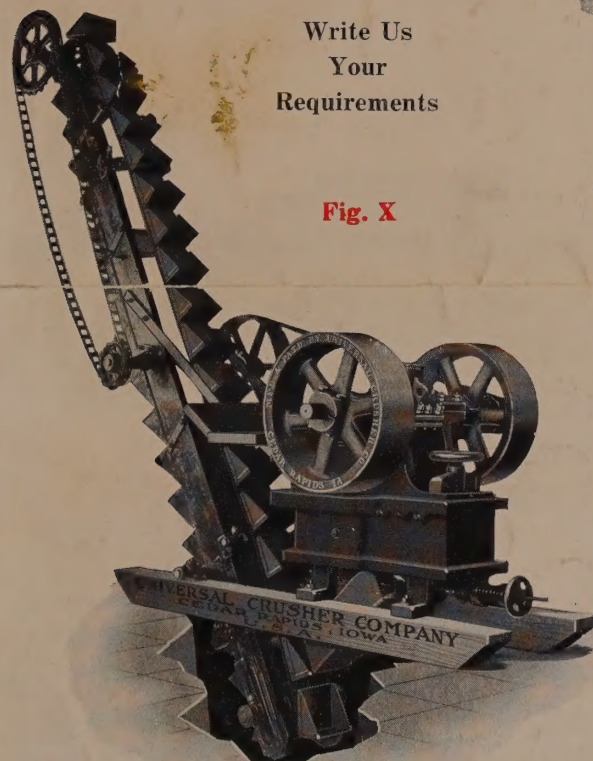


Fig. W



Write Us
Your
Requirements

Fig. X

Figure X shows application of elevators to small stationary crushers, being attached to the long skids by bracket bearing and the supporting irons from the crusher to the elevator, making a foundation for a feeding platform. The elevator is driven by a pulley or sprocket from the crusher shaft. The elevator is equipped with either continuous or Salem Type buckets, of sheet steel or malleable iron. We furnish elevators with any size buckets and any height desired. We also have a full line of different sizes of combination cast iron and steel boots to be used on vertical elevators, and a full line of geared heads for use on any size elevator over 30 feet in height. Styles of our Folding Elevators are shown in cuts D, G and HH, and are only used on portable outfits.

We carry in stock a complete line of Steel and Malleable Iron Buckets, Detachable Link Chains and attachments, Rubber and Red Stitched Cotton Belting, Elevator Bolts and all other material required in the construction of our elevators.

WRITE FOR OUR SPECIAL CIRCULAR ON UNIVERSAL HAMMER PULVERIZERS.
UNIVERSAL CRUSHER COMPANY, 625 C AVE. WEST, CEDAR RAPIDS, IOWA.

